

IN THE SPECIFICATION:

Please replace the paragraph beginning on page 11, line 6 with the following paragraph:

Inductors 20, 30 are coupled in series with conductors 14, 18 and downstream of the input to the power supply 36 15. The two inductors are inductively coupled to each other and inductor 20 is connected to feed a signal representative of the derivative (di/dt) current in the conductors to the arc fault detector 24 as described above. The microcontroller of the arc fault detector can be a stand alone component or it can be a part of the IC 225 of the ground fault circuit interrupter. If the microcontroller is a stand alone component, the trip signal generated by the microcontroller is fed to the SCR trigger circuit 216. If the microcontroller is a part of IC 225, the trip signal is the TRIG-GFCI signal from IC 225.

Please replace the paragraph beginning on page 12, line 26 with the following paragraph:

In those instances where the electrical power distribution network is three phase, a third series inductor 40 can be coupled in series with the third conductor 4 to produce a voltage across itself related to the derivative of current flow in the third conductor and positioned to achieve flux coupling with the inductor in the first and/or second series inductor(s) 20, 30.